

ROUNDUP

NASA LYNDON B. JOHNSON SPACE CENTER

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Friday, December 17, 1976



DECKING THE HALLS — In offices all around the center last week employees were dusting off the Christmas decorations, trimming trees and stringing tinsel. Here in the Space Shuttle Program Operations Integration office on the 6th

floor of Bldg. 1, Dorothy Hanovice, left, and Rachel Windham put the finishing touches on the tree. For more Christmas pictures, see page 4.

Season's greetings from the director

As Americans, we will remember our nation's Bicentennial Year in many different ways. Most of us will recall the nationwide celebrations of July 4 — the parades, fireworks displays and pageants from across the country in which we all participated by way of live television. Many will remember local events in which they took part or more personal family observances. It has been an inspiring time during which we as a nation commemorated our past as we look to a promising future.

Those of us at NASA and the Johnson Space Center can be especially proud of the role we are given in helping shape that future. This Bicentennial Year heralded a new era in space transportation which began September 17, with the rollout of the first Space Shuttle Orbiter. We are now taking applications for the first group of Shuttle astronauts and wrapping up plans for the upcoming Approach and Landing Tests.

We will also remember 1976 for the two Viking landings on the surface of Mars which gave mankind its first closeup view of another planet.

It has been a good year and we have much to be proud of as it comes to a close. I wish you and your families the happiest of holiday seasons and look forward to a successful and exciting year ahead for all of us at JSC.

Christopher C. Kraft, Jr.

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Employees earn cash awards

NASA rewards work of 23 at JSC

Cash awards totaling \$1,525 were presented to 23 JSC employees last month in recognition of their inventions, contributions, suggestions or technical briefs.

Jack Kinzler, chairman of the JSC Suggestion Committee, made the presentations Nov. 23.

Largest award for a single contribution was \$250 shared evenly by Ralph E. Drexel and Marion W. Hix, both of the Crew Station Design Branch, Spacecraft Design Division.

Drexel and Hix were cited for their conception and implementation of an ASTP rescue capability which allowed reconfiguration in flight to permit the safe return of both crews if Soyuz became inoperative.

Edwin L. Shropshire of the Sheetmetal and Model Branch, Technical Services Division, earned \$150 for suggestions of a "fast-fix" miter tubing fixture, protective cap removal wrench and new method for sanding brush-finish panels. Bruce W. Sprague also received \$25 for the last suggestion.

Calvin F. Herman of the Avionics Systems Integration Branch, Avionics Systems Engineering Division, was given \$100 for his invention of an improved method and apparatus for differential pulse code modulation for magnetic tape recorders.

David E. Pitts of the Research, Test and Evaluation Branch, Earth Observations Division, received \$100 for his invention of a technique for manufacturing mirrors in space.

William C. Schneider of the Structures Branch, Structures and Mechanics Division, was given \$100 for his invention of an auger device used to attach rigidized surface insulation to a spacecraft.

Rodney G. Rose of the Data Systems and Analysis Directorate received \$100 for his suggestion to eliminate handouts and enclosures from official meeting minutes.

Barbara L. Cour-Palais of the Communications Services Branch, Management Services Division, was given \$90 for her suggestion to use a standardized typing element for all interchangeable-element typewriters.

Roy L. Eason of the LACIE Project Office, Earth Observations Division, received \$75 for his suggestion to modify the JSC magnetic tape history mailing report.

Employees receiving lesser amounts for suggestions were Robert N. Stuckey, Structures and Mechanics Division, \$40; James R. Bates, Science Payloads Division, \$35; Michael J. Costigan, Spacecraft Design Division, \$35, and Joyce H. Dodson, Management Services Division, \$35.

Also Leonard A. Dotson, Quality Assurance Division, \$35; Jerome W. Kalk, Quality Assurance Division, \$35; Hoyt McBryar, Propulsion and Power Division, \$35, and Paul O. Romere, Engineering Analysis Division, \$35.

Receiving \$50 each for their work on tech briefs were Joe L. Day, Bioengineering Systems Division; W. Richard Downs, Structures and Mechanics Division; Paul S. Moravek, Technical Services Division; Walter M. Surrency, Technical Services Division, and Richard J. Williams, Lunar and Planetary Science Division.



ICE SCULPTURE — These frozen forms appeared overnight recently outside the JSC Credit Union. A water sprinkler system and record low temperatures combined to create the forest of ice. Freezing weather was an unmistakable reminder that winter is near and Christmas is just around the corner.

New exhibits open at Visitors' Center

Three new exhibits, including a 16-by-10-foot color photomosaic of the continental United States, are now on display in the Building 2 Visitor Center.

A slide-and-sound presentation, "NASA for the '70s: Space for Everyone," and a Space Shuttle exhibit are the other new attractions. Both of these were built at JSC but have been publicly shown only at Kennedy Space Center's 3rd Century America exposition.

The photomosaic is constructed

of 569 infrared images taken by Landsats I and II. It provides a virtually cloudless view of the 48 contiguous states at a scale of 1:1,000,000.

"Space for Everyone" is a 12-13 minute show narrated by author Ray Bradbury, co-starring Benjamin Franklin, Orville Wright and John Dillinger, among others.

The Space Shuttle exhibit includes a collection of wind tunnel models, a brief slide show and a Spacelab model.





MONEY WINNERS — JSC employees who recently received cash awards for their inventions, contributions, suggestions or tech briefs are: (standing, l to r) Bruce W. Sprague, Paul O. Romere, Rodney G. Rose, Edwin L. Shropshire, Marion W. Hix, Paul S. Moravek, Ralph E. Drexel, Michael J. Costigan, James R. Bates, W. Mike Surrency, Robert N. Stuckey,

William C. Schneider with Jack Kinzler, Suggestion Committee chairman; (seated, l to r) Joyce H. Dodson, Barbara L. Cour-Palais, Leonard A. Dotson, Jerome W. Kalk and Calvin F. Herman; (not pictured) Hoyt McBryar, Roy L. Eason, Joe L. Day, David E. Pitts, Richard J. Williams and W. Richard Downs.



TECH TRAINING GRADS — These four Technical Service Division employees pictured with Center Director Dr. Christopher C. Kraft Jr. were honored Dec. 3 for completing JSC's Technician Training Program. They hold certificates of achievement awarded them as graduates of the four-year, on-the-job training program which included selected technical courses at College of the Mainland. L to r: Kraft, Carl W. Pinkney, Peggy J. Bristow, Alan Bristow and Arthur L. Wilborn.

JSC attorney Wieland assumes new HQ post

JSC attorney Richard J. Wieland has been appointed assistant general counsel for litigation at NASA Headquarters, effective Dec. 19.

Wieland came here in 1963 and has served since 1969 as assistant chief counsel for general legal matters at the center.

The new position he will fill was established "in an attempt to have someone responsible at headquarters for monitoring all the agency's litigation," Wieland said.

Wieland is a 1951 graduate of the University of Maryland and received his law degree in 1959 from Georgetown University Law Center, where he later did graduate work.

Before coming to work at the center's legal office, Wieland was a law clerk to U. S. District Judge James Noel in Houston.

Wieland is a member of the Maryland, District of Columbia and Texas Bars and of the American, Federal and Houston Bar Associations. He has been active in the Air Force Reserve.

Now living in Clear Lake City, he and his wife and daughter will be relocating to the Washington area.

Satterfield rites held in CLC, North Carolina

Graveside services for James M. Satterfield of the Tracking and Communications Development Division were held Dec. 4 in Charlotte, N.C.

Satterfield, 48, died Dec. 2 in a Galveston hospital. Services at Clear Lake Methodist Church were held the next day.

A native of Salisbury, N.C., Satterfield was a Seabrook resident for 12 years.

Satterfield came to work at the Manned Spacecraft Center (now JSC) in 1962 after previous NASA experience at Langley Research Center, Goddard Spaceflight Center, and Cape Canaveral.

Secretary course review set

Part II of the Certified Professional Secretary Review Course conducted at the University of Houston at Clear Lake City and sponsored by the NASA Clear Lake Chapter of the National Secretaries Association (International) will begin January 12.

Classes will be held each Wednesday night from 6-9 p.m. in Room 2-515 of the Bayou Building.

Courses and instructors included in the spring semester are: Financial Analysis and the Mathematics of Business, Dr. Joan D. Bruno; Economics, Dr. William V. Rice; Management, Dr. Walter E. Natemeyer and Dr. Timothy Singleton.

Tuition for the 14-week course is \$60 (including \$10 for parking permit). Preregistration is now being accepted, with enrollment limited to 50 students. For further information or registration, call Helen Cooper, CPS, at 488-5806.

After a two-year reassignment at Langley as head of the Tracking Systems Section, Satterfield returned to Houston to serve as chief of the Systems Engineering Branch from 1965-71.

From 1971-73 he was deputy chief, Flight Support Division. He served as deputy chief, Spacecraft Software Division from 1973-74.

In August 1974 he was assigned to the Tracking and Communications Development Division as technical assistant for operational programs and project manager, Microwave Scanning Beam Landing System ground stations.

Satterfield received a bachelor of science degree in electrical engineering from North Carolina State University in 1949 and a master's degree from the same institution in 1963.

He received the Superior Achievement Award in 1969, Apollo 7 Operations Team Award in 1968, Exceptional Service Medal in 1973 and the Highest Performance Award in 1976.

Survivors include his wife, Jacqueline, and a son and daughter, all of Seabrook.

Green, Woeste named top December co-ops

Cooperative Education students Mary L. Green and Michael A. Woeste have been chosen to share "Co-op of the Month" honors for December.

Green is a senior in computer science at St. Mary's University in San Antonio. She is assigned to the Operations Analysis Section, Institutional Data Systems Division.

Woeste is a senior in engineering at the University of Cincinnati. He is assigned to the Flight Simulation Division.

In nominating Green for the award, her supervisor, section head Don F. Simanton, said that with only the limited training of in-house courses in programming and computer operation "she was capable of performing programming tasks which are normally assigned to newly hired college graduates."

Green is now able to program the Univac Exec 8 multi-programming, multi-processing system. Among other tasks, she has used an assembly level design language to create background formats for the FR80, a computer-driven

microfilm processor, Simanton said.

She has also done all the forms overlay work for the Xerox 1200, a computer driven printer, and is writing a series of programs that will manage the IDSD discrepancy report system.

Woeste's division chief, C. H. Woodling, said the student "has consistently exhibited capabilities equivalent to graduate engineers" in his work, particularly with the Shuttle Procedures Simulator project.

His assignments have included direct operational support during production runs on the SPS. Woeste has been able to assume duties formerly performed by an experienced engineer, including formulation of aerodynamics equations with the effects of reaction control system interaction.

"Woeste has also exhibited excellent versatility by performing several computer programming assignments" and has been "a diligent and enthusiastic employee," Woodling said.

EAA ATTRACTIONS

TICKETS

The following tickets are available at the Bldg. 11 Exchange Store from 10 a.m.- 2 p.m., Monday-Friday:

Houston Aeros — EAA discount gift coupons may be exchanged at the Summit box office for "live" tickets on the night of the game. A \$6.50 coupon gets you an \$8 ticket, \$5.50 gets a \$7.50 ticket and \$4 gets a \$5 ticket. Aeros play Quebec, Dec. 17; New England, Dec. 21; Cincinnati, Dec. 23; Winnipeg, Dec. 28; Indianapolis, Dec. 30, and San Diego, Jan. 11.

ABC Interstate Theaters — \$1.50 admission tickets.

Dean Goss Dinner Theater — Comedy production, *Opal's Baby*, \$16/couple. Tickets available every night except Monday, Saturday.

Disney Magic Kingdom Club — Free membership cards.

Sea-Arama Marineworld — Tickets on sale, \$3.75 for adults, \$2.50 for children. Open until dusk year-round.

Windmill Dinner Theater — \$14/couple for *I do, I do* starring Harve Presnell. Tickets available for Weds-Thurs-Sun only.

BASKETBALL STANDINGS

Klate-Holt came out steaming after the half to claim the league championship Dec. 7 with a 65-48 win over the Lakers.

Both teams had identical 4-1 records entering the game and K-H ended the first half with only a 4-point lead. The final score illustrates how well they dominated second half action.

The season ended with Klate-Holt's won-loss record at 5-1; Lakers, 4-2; Association, 3-4, and IBM, 0-6. K-H's only loss came at the hands of the Lakers, Nov. 17, a game which was won in overtime

play. That defeat was offset with the impressive Dec. 7 showing by Klate-Holt.

Registration for the Jan.-Feb. basketball league is now underway. The season will start the week of Jan. 3. Team captains must have their rosters and entry fees turned in by Dec. 24. Games are expected to be played on Wednesday night and spectators are encouraged to come join the fun.

B LEAGUE SOFTBALL

At press time, the Chugs and Brewers seemed headed for the B League playoffs Dec. 20, although the Blue Turkeys, Sopac and Mullets were not mathematically eliminated from title hopes. Brewers were 4-1, Chugs were 4-0. Whoever eventually wins in the league will have to play in the A League next season.

C LEAGUE SOFTBALL

Thundering Herd is guaranteed the championship in this league, holding a 6-0 record at press time with no other team near them. Herd team members will have to move up to A or B League or out next season to assure they don't dominate the league.

HELP YOUR HEART

Interested in learning to improve the health of your heart and reduce the circumference of your waistline?

At noon, Jan. 11, in the Bldg. 2 auditorium, dietician Jackie Young will discuss lowering blood cholesterol and triglycerides.

At the same hour and place, Jan. 13, psychologist Dr. John Foreyt will discuss modification of dietary habits to lose weight.

Bring a brown bag lunch. Each program will end at 1 p.m.

ROUNDUP

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Photographer: A. "Pat" Patnesky

Feliz Navidad... Joyeux Noël... Fröhliche Weihnachten Mele Kalikimaka... in any language, Merry Christmas



Roundup Swap Shop

Swap Shop advertising is open to JSC federal and on-site contractor employees. Goods or services must be offered as advertised, without regard to race, religion, sex or national origin. Non-commercial personal ads should be 20 words or less, and include home telephone number. Typed or scribbled ad copy must be received by AP3/Roundup by Thursday of the week prior to publication.

CARS & TRUCKS

68 Ford Galaxie 500. Air, auto, pwr, good cond, works fine. Wells, X-5293 or 554-2871 after 4:30.
56 Buick Special. Everything works, good tires, good work car. Etzel, 472-4837.
Parts for 70 Mustang Mach 1. Left fender & door, grille, cowling, back seat, many more. Doby, 534-3413 or 534-4297 after 5.
65 GMC Pickup w/camper. Radio, air, good cond. \$695. Renfro, X-2931 or 334-3174.
67 Cadillac Calais. 4-dr, full pwr, xtra clean. 488-0687.
74 LTD Brougham. 4-dr, AM/FM stereo, pwr, air, lux group, SBR tires, vinyl top, xtra clean. \$2,950. 481-6088 after 5:30.
73 Toyota Corolla. Air, 4-dr, 4-spd, 1 owner, xint cond. \$1,750. Wilson, X-3803 or 488-7169 after 5:30.
70 Pontiac Catalina. Fair cond, damage left side. \$300 or best offer. Isaac, 337-2237, X-3738 or 3739.
72 Buick Skylark V8 Custom. Blue, white vinyl top, air, pwr, tape deck. 946-9196 or 729-5481.
72 Pontiac Bonneville. 4-dr, air, pwr, radio, good cond. \$1,400. Rowley, X-3751 or 643-4859.
73 Lotus Europa Special. 30K mi, 5-spd, air, AM/FM. \$6,500. Locher, 471-4387.
71 Chevy Pickup. Disc brakes, pwr steer, air, auto, good cond, reliable, tool-box. \$1,795. Peacock, X-2208 or 332-2292.
76 Chevy Blazer. 4 mos old, still under warranty, fully loaded, take up payments. Jan, X-3541 or 482-2667.

CYCLES

Honda 125. Xint cond, 800 mi. \$450. X-3558 or 482-2091.

73 Honda Mini-trail. 50cc, xint cond, w/bumper carrier. \$160. 482-3824.
Norton 850 Commando. 2500 mi, xint cond, below blue book. 334-2317 after 4:30.
73 Honda CB350 Four. \$600. 482-7029 after 5.
Two girls' 10-spd bikes. Xint cond, great Xmas presents. \$40 ea. Jay, X-6357 or 481-2335.
Raleigh bicycle. 1976 red Grand Prix, 23-1/2" frame, 2 mos old, xint cond. \$135. Lee, X-5581 or 332-3551, Rm 336 after 5.
10-spd Gitane bike, boy's 24". 1-yr old, like new. \$70. Grace, X-3166 or 333-4353.

BOATS

CAL 2-24 Sailboat. Ready to sail. \$5,800. Tantilio, X-5270 or 471-3735.
Two bass boat fishing seats w/ pedestals. White vinyl swivel & reclining w/folding armrests. \$25 ea. Carver, X-2131 or 334-1619 after 5.

PROPERTY & RENTALS

For rent: Beautiful 3-2-2 in Clear Lake City. Fenced, landscaped, amenities. Allgeier, 474-3961.
For rent: 2 bdrm apt in By-the-Sea condo, Galveston W. Beach. Furnished, color TV, full-equip kitchen. \$180/wk off season. Clements, 474-2622.
Room to let w/kitchen privs. Sage-mont. Avail thru May. Juday, X-4505 or 481-3946.
Renters wanted to share furn house, Wedgewood. No lease, \$135/mo. Avail 12/23. Jeff, 482-5393 after 5.
For sale: Oakbrook West, 4-2-2, central A/H, fireplace. \$59,500. 488-8959 before 8.
Lake Rayburn water access lot. Wooded, restricted, utilities, rec facilities. Must sell, owner finance. \$4,695. Colton, 488-2962.

Lg wooded residential lot, Friends-wood. Concrete streets, undergrd utils. \$10,500. 482-7774 after 6.
Beautiful 4-2 all brick, cathedral family & fireplace. 30 shade/fruit trees, garden, screened & outside patio, workshop, etc. Camino So. 488-0661.

STEREOS

40 watt stereo amp & AM/FM multi-plex stereo tuner. Knight equipment. 334-2461.

HOUSEHOLD ARTICLES

Sit 'n' Sleep corner group w/table. Quilted floral covers on beds and backrests. Like new. \$150. 944-3795.
Sonola electric chord organ. Ideal for child's Xmas gift or for beginner. \$75. Ratisseau, X-2821.
Student desk w/chair, solid oak, light stain, xint cond; \$75. Lg junior pool table, like new; \$30. Teasdale, X-5971 or 481-6074.
Beige shag rug, 10 X 11; \$25. Beige satin, lined drapes w/valence, 132" wide X 92"; \$25. 333-4669.
Apt size Whirlpool washer, reg size Whirlpool dryer, white, good cond. \$225. 946-9192.
Ping pong table. Fold up, roll around, net, xint cond. 488-3319 after 5.
Dining room suite. Spanish, octagonal table w/leaf, 4 chairs. Buffet w/hutch. By Link-Taylor. Like new. \$1,200. 488-3954.
Baby walker, \$3. Infant seat, \$1. 333-3382 after 5.

MISCELLANEOUS

Old Sick Box. Brown papered back, oak frame, glass enclosed statue, drop leaf front panel w/candle holders, plus spoon, plate & Holy Water bottle. \$50. 335-5510.

Getting out of HO trains. 3 sets, xtra track & switches, other xtras. \$65 takes all. Art, X-5270 or 471-3735.

4-in vise. Good cond. \$10. Handley, X-2271 or 482-7041.
FREE: Old model aircraft magazines. 1960s M.A.N., A.A.M., Flying Models, R/C Modeler and misc. Wells, X-5293 or 554-2871 after 4:30.

Hamster Habitrail, many pieces, good cond. Small pool table good for 6-8 yr old. Both reasonable. Summers, X-4995 or 944-5944.

Family membership in Racquet Club, discounted; classic model Polaroid camera from '50s w/leather case, \$59; boat-tow-bar for water skiing, \$15; laminated wooden O'Brien waterski, \$85; equipped 16-ft tri-hull boat in new cond w/120 HP outbrd & trlr, \$2,495. Bland, 333-4580.
Xint Xmas gift. Norwegian blue fox shrug. \$200. 471-4071 after 5.

WANTED

40-60 HP OB motor, prefer 2 cyl, good cond. 481-3787 or Gordon, X-3319.

Carpool from Sun Valley-Freeway Manor area. 7:30-4. 946-9037.

Buy or trade American Flyer or Lionel trains & acces. Working or not. 334-3182.

Firefighters needed! Men & women, adult residents of Clear Lake City to join CLC Volunteer Fire Dept. Rewarding community service. You will be trained & equipped. 488-0023 anytime.

Forming carpool betw Wedgewood or Forest Bend & Bldg 4 or 5. 8-4:30. Jeff, X-6355 or 482-5393.

LATE ENTRIES

HO gauge model train parts & acces for sale. Incl track, switches, transformer & cars. Cliff, 488-1366.

Solid maple, twin, spindle bed frame. \$35. 488-1366.



Happy Holidays
from your
Cost Reduction
Office - BH23

Spacelab demonstration crew undergoes full medical exams

NASA employees who will participate in next spring's Life Sciences Spacelab Mission Demonstration (SMDIII) at JSC recently underwent the kind of medical examinations that Space Shuttle payload specialists will have to pass.

Dr. Carter Alexander of JSC's Space Research and Operations Division, and Drs. Patricia Cowings, Richard E. Grindeland and Bill A. Williams of Ames Research Center, took the battery of tests earlier this month.

The exams are similar to those to be given to persons who will operate scientific experiments carried into orbit aboard the Orbiter when Shuttle becomes operational in 1980.

Among the tests are electrocardiograms (EKG) and vectorcardio-

grams made while the subjects exercise on a treadmill or lie in the Lower Body Negative Pressure (LBNP) device.

In the treadmill test, speed and grade of the moving belt are varied while the subject's heart rate and blood pressure are monitored. The LBNP device encases the subject from the waist down; pressure in the chamber is then reduced and reaction of the cardiovascular system to pressure changes is observed.

An LBNP device was flown aboard Skylab to simulate the stresses on the cardiovascular system that occurs upon return to Earth's one gravity from zero gravity in orbit.

Other more traditional clinical medical measurements were also

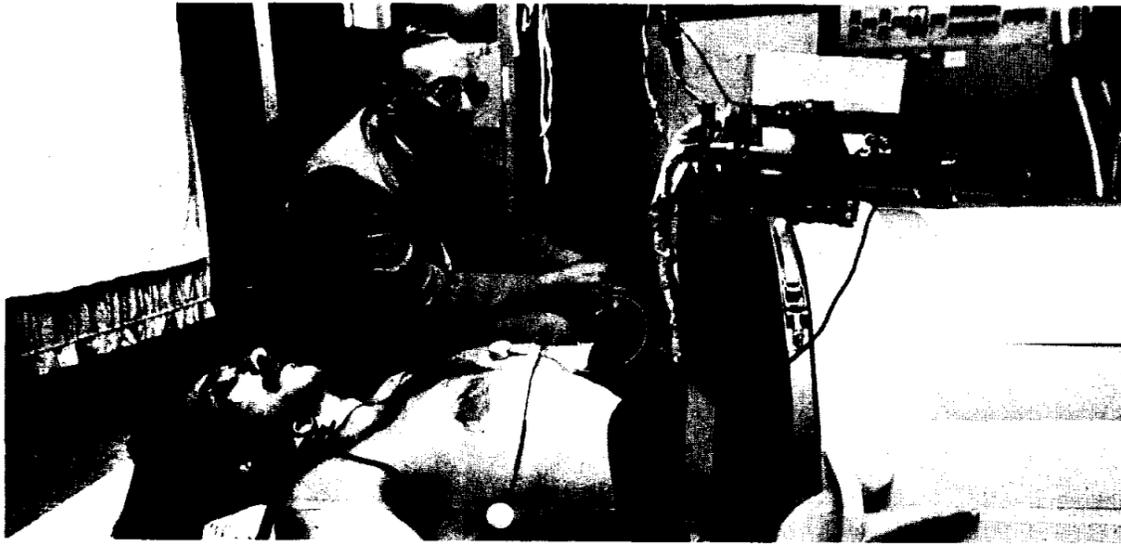
performed on the four subjects.

Scheduled for the spring of 1977, the SMDIII will be the third such rehearsal of developmental life sciences experiments that typify those to be flown aboard Spacelab in the Orbiter's cargo bay. Spacelab is being developed by the European Space Agency, a consortium of 10 European nations.

Simulation crew selection is separate and distinct from the actual Shuttle pilot, mission specialist and payload specialist selection process. JSC is accepting applications until June 30, 1977, for at least 30 Shuttle astronauts - 15 pilot candidates and 15 mission specialist candidates. Procedures for selecting payload specialists are yet to be announced.



SPACELAB PHYSICAL - Dr. Patricia Cowings of Ames Research Center undergoes vision testing at the JSC clinic as part of her preparation as backup crew member for next spring's Life Sciences Spacelab Mission Demonstration III. Medical technician Gloria Singletary, left, administers the examination.



PRESSURE REACTION - JSC's Dr. Carter Alexander lies in the Lower Body Negative Pressure device at the Cardio-pulmonary Lab during testing of his cardiovascular system in preparation for his role as prime crewman in SMD III. Dr.

John Zieglschmid of the Space Medicine Branch monitors the equipment. Reduced pressure inside the chamber simulates the return from zero gravity in space to Earth's one gravity.



Christmas scenes around the center

Colorful Christmas decorations brighten work areas all around JSC this holiday season. Clockwise, from right: A closeup view of the Christmas tree in Bldg. 7 lobby; Donald O. Bray of the Engineering Division, Bldg. 45, proudly shows off his nameplate and decorations; Mrs. Betty Cobb of the Aerospace Corp. field office in Bldg. 1 is reported to have one of the nicest adorned offices on site (as well as what can be seen in this photo, the balloon-borne Santa on page 1 is also hers); Bonny Holtje, left, and Betty Myers do mock battle over a gift at the Data Distribution Center in Bldg. 12.

